UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,527	11/06/2003	Daniel Baumberger	42339-192058	7357

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EXAMINER
SEYE, ABDOU K

ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/701,527	BAUMBERGER, DANIEL
	Examiner	Art Unit	
	Abdou Karim Seye	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>21 June 2007</u>.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,3-15 and 17-20</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1,3-15 and 17-20</u> is/are rejected.

7) ☒ Claim(s) <u>17 and 18</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>06 November 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
AVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The amendment filed on June 21, 2007 has been received and entered. The

amendment amended Claims 1, 3, 8 and 15 and cancelled claims 2 and 16. The currently

pending claims considered below are Claims 1, 3-15 and 17-20.

Claim Objections

2. Claims 17 and 18 are objected to because of the following informalities:

   Claims 17 and 18 contain this expression " according to claim 16 " which is cancelled

by the applicant > The examiner thinks that, should be "according to claim 15 ". The

examiner considers this as a typographical error from the applicant.

      A correction is required.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions
> and requirements of this title.

      Claim 15 is non statutory.The claimed product, a computer readable memory

could be constructed of software program instructions(see specification, page 4,

paragraph 19). Thus, this claimed product could be a virtual memory address space

that is software containing machine-executable instructions, per se (and not associated

with any physical structure). See MPEP 2106.01 - I: "...computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized... ". Also it appears that no tangible result is achieved from the placing a page in an address space (MPEP 2106 (IV) (C).

Claim 8 is non statutory.The claimed system could be constructed of software program instructions(see specification, page 4, paragraph 19 and page 3, paragraph 14). Thus, the claimed system comprising of processor and a computer readable memory could be considered as software program since, these component according to the specification are abstraction of a processor and virtual memory address space. Also it appears that no tangible result is achieved from supervising communication between the first and second virtual machine (MPEP 2106 (IV) (C).

Claims 9-14 and 17-20 are also rejected for failing to remedy the deficiencies of the above rejected non statutory claims 8 and 15.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent granted
on an application for patent by another filed in the United States before the invention by the applicant for
patent, except that an international application filed under the treaty defined in section 351(a) shall have
the effects for purposes of this subsection of an application filed in the United States only if the
international application designated the United States and was published under Article 21(2) of such
treaty in the English language.

5. Claims 1, 3-15 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated

by **Lowell (US 20050076156).**

Claim 1, Lowell teaches a method, system and product comprising:

utilizing first and second virtual machine queues associated with respective first and

second virtual machines to communicate between the virtual machines (paragraph 22;

FIG. 2: 221, paragraph 26); and

updating a page table in a processor by placing a page associated with the first virtual

machine in an address space associated with the second virtual machine (paragraph

28, 33, 37-38 and 42).

Claim 3, Lowell teaches, wherein updating includes:

placing at least one of data and an address associated with the page into a first virtual

machine control structure associated with the first virtual machine; exiting the first virtual

machine; placing the at least one of data and address into the second virtual machine

queue; and dequeueing the second virtual machine queue (paragraph 24,27-28,34,39,

44; VMM virtualizing; ceasing or pausing and devirtualizing of the virtual machines).

Claim 4, <u>Lowell</u> further teaches, wherein dequeueing includes:

reading the at least one of data and address into a second virtual machine control

structure associated with the second virtual machine; and storing the at least one of

data and address into the address space associated with the second virtual machine

(paragraph 37-38).

Claim 5, <u>Lowell</u> teaches,

wherein the page contains a message and the method further comprises: processing

the message within the second virtual machine (paragraph 27 and 28).

Claim 6, <u>Lowell</u> teaches, wherein exiting occurs immediately after placing the at least

one of data and an address associated with the page into the first virtual machine

control structure.

Claim 7, <u>Lowell</u> teaches, further comprising:

conveying identification information associated with the first and second virtual

machines between the first and second virtual machines via the first and second virtual

machine queues (paragraph 34; "VMM associated with identity mapping"). This claimed

element of <u>lowell's</u> reference meets the claimed limitation of the claim.

As per claims 9-14 and 17-20, they are rejected for the same reasons as the claims

above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to the

applicant's disclosure.

     <u>Chang et al</u> (36462) discloses a method to control paging subsystem

processing in virtual memory data processing system during execution of critical

code sections.

     <u>Traversat et al</u> (US 20040168030) discloses caching mechanism for virtual

heap.

     Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Exr. Abdou Seye whose telephone number is

(571) 270-1062. The examiner can normally be reached Monday through Friday

from 7:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, contact

the examiner's supervisor, William Thomson at (571) 272-3718. The fax phone

number for formal or official faxes to Technology Center 3600 is (571) 273-8300.

Draft or informal faxes, which will not be entered in the application, may be

submitted directly to the examiner at (571) 273-6722.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group Receptionist whose telephone

number is (571) 272-3600.

AKS
August 15, 2007

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER